

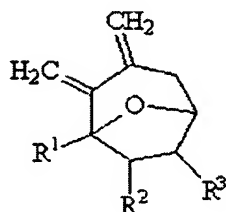
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-8 (Cancelled).

9. (New) A 7-membered carbocyclic compound with diexomethylene groups having the formula (I):



(I)

wherein R^1 is a C_1 to C_6 alkyl group, and R^2 and R^3 is each a hydrogen atom, or R^1 , R^2 and R^3 are connected with neighboring substituents to form a 5 to 10 -membered aliphatic or aromatic ring.

10. (New) The compound of Claim 9, wherein R^1 is C_1 to C_3 alkyl, and each of R^2 and R^3 is a hydrogen atom.

11. (New) The compound of Claim 9, wherein R^1 and R^2 are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R^3 is a hydrogen atom.

12. (New) The compound of Claim 9, wherein R^2 and R^3 are connected with each other to form a 5 to 10-membered aliphatic or aromatic ring, and R^1 is a hydrogen atom.

13. (New) The compound of Claim 10, wherein R^1 is methyl.

14. (New) The compound of Claim 9, wherein R^1 is phenyl, and each of R^2 and R^3 are hydrogen.

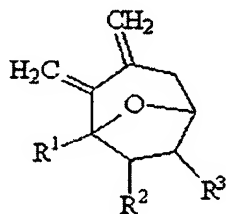
15. (New) The compound of Claim 12, wherein R^2 and R^3 are connected with each other to form a phenyl group.

16. (New) The compound of Claim 11, wherein R^1 and R^2 are connected with each other to form a cyclopentyl group.

17. (New) The compound of Claim 11, wherein R^1 and R^2 are connected with each other to form a cyclohexyl group.

18. (New) The compound of Claim 11, herein R^1 and R^2 are connected with each other to form a cycloheptyl group.
19. (New) The compound of Claim 9, which is 1-methyl-2,3-dimethylene-8-oxa-bicyclo[3.2.1]octane.
20. (New) The compound of Claim 9, which is 2,3-dimethylene-1-phenyl-8-oxa-bicyclo[3.2.1]octane.
21. (New) The compound of Claim 9, which is 9,10-dimethylene-12-oxa-tricyclo[6.3.1.0^{2,7}]dodeca-2,3,5-triene.
22. (New) The compound of Claim 9, which is 9,10-dimethylene-11-oxa-tricyclo[5.3.1.0^{1,5}]undecane.
23. (New) The compound of Claim 9, which is 10,11-dimethylene-12-oxa-tricyclo[6.3.1.0^{1,6}]dodecane.
24. (New) The compound of Claim 9, which is 11,12-dimethylene-13-oxa-tricyclo[7.3.1.0^{1,7}] tridecane.

25. (New) A method of synthesizing a 7-membered carbocyclic compound with diexomethylene groups, and having the formula (I), which comprises reacting a trimethylsilylmethyl-allenol compound by intramolecular Prins cyclization in the presence of a Lewis acid:



(I)

wherein R^1 is a C_1 to C_6 alkyl group, and R^2 and R^3 is each a hydrogen atom, or R^1 , R^2 and R^3 are connected with neighboring substituents to form a 5 to 10-membered aliphatic or aromatic ring.

26. New) The method of Claim 25, wherein the reaction is conducted in a solvent selected from the group consisting of diethyl ether, tetrahydrofuran, dichloromethane and chloroform.

27. (New) The method of Claim 25, wherein said Lewis acid is trimethylsilyl trifluoromethanesulfonate (TMSOTf) and is used in an amount of 1.0 to 1.5 equivalent of said trimethylsilylmethyl-allenol compound.

28. (New) The method of Claim 25, wherein the reaction is effected at a temperature in the range from -90°C to 25°C.

29. (New) The method of Claim 25, wherein the reaction is effected at -78°C.

30. (New) The method of Claim 26, wherein the solvent is diethyl ether.

31. (New) The method of Claim 25, wherein the reaction is effected for 3 to 5 hours.

32. (New) The method of Claim 25, wherein the 7-membered carbocyclic compound is 1-methyl-2,3-dimethylene-8-oxa-bicyclo[3.2.1]octane.

33. (New) The method of Claim 25, herein the 7-membered carbocyclic compound is 2,3-dimethylene-1-phenyl-8-oxa-bicyclo[3.2.1]octane.

34. (New) The method of Claim 25, wherein the 7-membered carbocyclic compound is 9,10-dimethylene-12-oxa-tricyclo[6.3.1.0^{2,7}]dodeca-2,3,5-triene.

35. (New) The method of Claim 25, wherein the 7-membered carbocyclic compound is 9,10-dimethylene-11-oxa-tricyclo[5.3.1.0^{1,5}]undecane.

36. (New) The method of Claim 25, wherein the 7-membered carbocyclic compound is 10,11-dimethylene-12-oxa-tricyclo[6.3.1.0^{1,6}]dodecane.

37. (New) The method of Claim 25, wherein the 7-membered carbocyclic compound is 11,12-dimethylene-13-oxa-tricyclo[7.3.1.0^{1,7}]tridecane.

38. (New) A method of preparing a 7-membered carbocyclic compound with diexomethylene groups, which comprises subjecting a trimethylsilanyl-allenol compound to an intramolecular Prins cyclization in the presence of a Lewis acid, to produce said 7-membered carbocyclic compound in a yield of at least 77%.

39. (New) The method of Claim 38, wherein the yield is at least 90%.

40. (New) A method of preparing a Diels-Alder reaction product, which comprises subjecting the 7-membered carbocyclic compound of Claim 9, to a Diels-Alder reaction.